

MIL-F-18327E  
AMENDMENT 3  
31 January 1994  
SUPERSEDING  
AMENDMENT 2  
29 April 1988

## MILITARY SPECIFICATION

FILTERS: HIGH PASS, LOW PASS, BAND PASS,  
BAND SUPPRESSION, AND DUAL FUNCTIONING,  
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-F-18327E, dated 17 July 1981, and is approved for use by all Departments and Agencies of the Department of Defense.

## PAGE 1

1.1, line 4: Delete "150 megahertz" and substitute "500 megahertz".

\* Beneficial comments block: Delete and substitute:

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Electronics Supply Center, ATTN: ELD, Dayton, OH, 45444-5765 using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

## PAGE 3

- \* 2.1, SPECIFICATIONS, FEDERAL: Delete "QQ-S-781 - Strapping, Steel, and Seals".
- \* 2.1, STANDARDS, MILITARY: Delete "MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes."
- \* 2.1, STANDARDS, MILITARY: Delete "MIL-STD-1188 - Commercial Packaging of Supplies and Equipment."
- \* 2.1, STANDARDS, MILITARY: Delete "MIL-STD-794 - Parts and Equipment, Procedures for Packaging and Packing of."
- \* 2.1, STANDARDS, MILITARY: After MIL-STD-1285, add "MIL-STD-2073-1 - DOD Materiel Procedures for Development and Application of Packaging Requirements (Part 1 of 2 Parts)."

## PAGE 11

\* 2.2, delete and substitute:

"2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DODISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DODISS are the issues of the documents cited in the solicitation (see 6.2).

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM D 3951 - Standard Practice for Commercial Packaging. (DoD adopted)
- ASTM D 3953 - Standard Specification for Strapping, Flat Steel and Seals. (DoD adopted)

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1137.)

ELECTRONIC INDUSTRIES ASSOCIATION

RS-209-A-63 - Standard for Electron Tubes.

(Application for copies should be addressed to the Electronic Industries Association, 2001 Pennsylvania Avenue, N.W., Washington, D.C. 20006.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)"

- \* 3.2, delete and substitute:

"3.2 First article. When specified (see 6.1.1 and 6.1.2), a sample shall be subjected to first article inspection (see 6.2) in accordance with 4.5."

- \* 3.3.1, delete and substitute:

"3.3.1 Tin-plating. When used, tin plating shall be in accordance with MIL-T-10727 or electro-tin fused, except that the minimum lead content shall be 3 percent. (NOTE: Use of pure tin plating is prohibited as a final finish and as an undercoat effective 6 months from the date of this specification (see 6.7.5))."

PAGE 13

- \* 3.8, delete "Sealing" and substitute "Seal".

- \* 3.10, delete in its entirety.

PAGE 15

- \* After paragraph 4.1.1, add new paragraph 4.1.2 as follows:

"4.1.2 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material."

- \* 4.2a., delete and substitute:

"a. First article inspection (see 4.5)."

- \* 4.5 and 4.5.1, delete "Qualification" and substitute "First article".

- \* 4.5.1.1, delete "qualification" and substitute "first article".

PAGE 16

- \* TABLE VI, title, delete "Qualification inspection." and substitute "First article inspection."

- \* TABLE VI, Group I, delete requirement for "Barometric pressure (reduced)" and references to 3.10 and 4.7.7.

PAGE 17

- \* TABLE VI, title, delete "Qualification inspection." and substitute "First article inspection."

- \* 4.5.1.3, delete "qualification" and substitute "first article".

- \* 4.5.2, TABLE VII, 4.5.2.1, 4.5.2.2, and 4.5.2.3, delete their entirety.

PAGE 18

- \* 4.5.3, delete in its entirety.  
\* TABLE VIII, delete and substitute:

"TABLE VIII. Group A inspection.

Inspection	Requirement paragraph	Test paragraph	Sampling procedure
Visual and mechanical inspection (external)	3.1, 3.3, 3.3.1, 3.4 to 3.4.3 inclusive, 3.4.5, 3.26, and 3.27	4.7.1.1	See table VIII-1
Seal <u>1/ 2/</u>	3.8	4.7.5	
Dielectric withstanding voltage	3.9	4.7.6	
Insulation resistance	3.11	4.7.8	
Insertion loss (at reference frequency)	3.12	4.7.9.2	

- 1/ The seal test may be done in group A, or at the end of group B, using the group A sample size.  
2/ Any filter which shows evidence of leakage may be given remedial treatment if evidence is submitted to show that such remedial treatment is adequate and that all of the other filters in the lot have been given similar remedial treatment where required."

- \* After TABLE VIII, add:

"TABLE VIII-1. C = 0 sampling plan.

Lot size	Sample size	
	Group A	Group B
2 to 3	100 percent	100 percent
4 to 13	100 percent	3
14 to 25	13	3
26 to 50	13	5
51 to 90	13	6
91 to 150	13	7
151 to 280	20	10
281 to 500	29	11
501 to 1,200	34	15
1,201 to 3,200	42	18
3,201 to 10,000	50	22

- \* 4.6.1.2.1, delete and substitute:

"4.6.1.2.1 Sampling plan. A sample of parts shall be randomly selected in accordance with TABLE VIII-1. If one or more defects are found, the lot shall be 100 percent rescreened for those quality characteristics found defective in the sample and defects removed. After rescreening and removal of defects, a new sample of parts shall be randomly selected in accordance with TABLE VIII-1. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

- \* 4.6.1.2.2, delete in its entirety.

PAGE 19

- \* 4.6.1.3.1, delete and substitute:

"4.6.1.3.1 Sampling plan. A sample of parts shall be randomly selected in accordance with TABLE VIII-1. If one or more defects are found, the lot shall be 100 percent rescreened for those quality characteristics found defective in the sample and defects removed. After rescreening and removal of defects, a new sample of parts shall be randomly selected in accordance with TABLE VIII-1. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

PAGE 21

- \* 4.7.5, delete "Sealing" and substitute "Seal".
- \* 4.7.7, delete in its entirety.

PAGE 26

- \* 5.1, delete and substitute:

"5.1 Preservation. Preservation shall be level A, C, or as specified (see 5.4.3.5 and 6.1)."

- \* 5.1.2, delete "MIL-STD-794" and substitute "MIL-STD-2073-1".
- \* 5.2.3, delete "MIL-STD-794" and substitute "MIL-STD-2073-1".

PAGE 27

- \* 5.2.4.3, delete "MIL-STD-794" and substitute "MIL-STD-2073-1".
- \* 5.4.3, delete and substitute:

"5.4.3 Army acquisitions.

"5.4.3.1 Level A and level B unit packs. Unit packs shall be as specified in 5.1.1.4.1 and 5.1.1.4.2, except that unit containers shall be either weather (or water) resistant or overwrapped with waterproof barrier materials. For level B unit packs, the methods of preservation shall be substituted as follows:

<u>Level A</u>	<u>Level B (substitute method)</u>
III	No change
IA-15	IC

"5.4.3.2 Level A and level B intermediate packs. All intermediate containers shall either be weather (or water) resistant or overwrapped with waterproof barrier materials. Containers conforming to PPP-B-566 or PPP-B-676 shall be variety 2, or be overwrapped with waterproof barrier materials. Intermediate containers shall be uniform in size, shape, and quantities; shall be of minimum tare and cube; and shall contain multiples of 5 unit packs not to exceed 50 unit packs. Intermediate containers shall not exceed a maximum of 40 pounds net weight and a maximum of 1.5 cubic feet, with at least each of two dimensions not exceeding 16 inches. Intermediate containers shall not be required when the total quantity being shipped will result in only one intermediate pack per shipping container."

"5.4.3.3 Level A and level B packing. For level A packing the fiberboard containers shall not be banded but shall be placed in a close-fitting box conforming to PPP-B-601, overseas type; PPP-B-621, class 2, style 4, or PPP-B-585, class 3, style 2 or 3. Closure and strapping shall be in accordance with applicable container specification except that metal strapping shall conform to ASTM D 3953, type I, finish A. When the gross weight exceeds 200 pounds or the container length and width is 48 x 24 inches or more and the weight exceeds 100 pounds, 3 x 4 skids (laid flat) shall be applied in accordance with the requirements of the container specification. If not described in the container specification, the skids shall be applied in a manner which will adequately support the item and facilitate the use of material handling equipment. For level B packing, fiberboard boxes shall be weather-resistant as specified in level A and the containers shall be banded.

"5.4.3.4 Unitization. Palletization shall be required when containers specified in 5.4.3.3 do not require skids; quantities per destination exceed either a total of 250 pounds (excluding the pallet) or a volume of 20 cubic feet; and the container size permits use of one of the pallet patterns of MIL-STD-147. A quantity of containers, packed as specified, except that container strapping may be omitted, shall be placed on a pallet, load type I conforming to MIL-STD-147. The pallet shall conform to NN-P-71, type IV, group I or II woods. The load shall be "bonded" to the pallet by strapping conforming to ASTM D 3953, type I, finish A, or shrink film conforming to L-P-378, type IV. Stretch wrap in accordance with MIL-STD-147 is authorized for shipments within the Continental United States and for containerized shipments.

"5.4.3.5 Industrial. The industrial preservation shall be in accordance with ASTM D 3951."

- \* 6., under section title add the following:

"(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)"

- \* 6.1.1, add new subparagraphs h and i:

"h. When level B preservation is specified, this level of protection will only be used under known favorable conditions during transportation, storage, and handling.

i. Whether first article inspection is required (see 3.2)."

PAGE 28

- \* 6.1.2, add new subparagraph g:

"g. Whether first article inspection is required (see 3.2)."

- \* 6.2, delete and substitute:

"6.2. First article. When first article inspection is required, the contracting officer should provide specific guidance to offerors whether the items should be a preproduction sample, a first article sample, a first production item, a standard production item from the contractor's current inventory (see 3.2), and the number of items to be tested as specified in 4.5. The contracting officer should also include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results, and disposition of first articles. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract. Bidders should not submit alternate bids unless specifically requested to do so in the solicitation."

- \* 6.2.1, delete in its entirety.

- \* 6.7, second sentence, delete in its entirety.

- \* 6.7.5, delete and substitute:

" 6.7.5 Tin-plated finish. Tin plating is prohibited (see 3.3.1) since it may result in tin whisker growth. Tin whisker growth could adversely affect the operation of electronic equipment systems. For additional information on this matter, refer to ASTM B 545 (Standard Specification for Electrodeposited Coating of Tin)."

PAGE 30

- \* APPENDIX, title, delete "QUALIFICATION" and substitute "FIRST ARTICLE".
- \* 10.1, delete "qualification" and substitute "first article".

PAGE 31

- \* 20.2.2, delete "qualification" and substitute "first article".
- \* 20.2.2, delete "DESC-E" and substitute "DESC-EL".
- \* 20.3, delete in its entirety.
- \* 30., delete "qualification" and substitute "first article inspection".
- \* 30.1, delete "qualification" and substitute "first article inspection".

PAGE 34

- \* Sealing test: Delete "Sealing" and substitute "Seal".
- \* Barometric pressure: delete paragraph and subparagraphs.

PAGE 36

- \* Additional electrical characteristics: Delete the following sentence: "For definitions of electrical terms not included in MIL-F-18327, see ANSI C42.100."

PAGE 39

- \* *FIGURE 10, delete in its entirety.*

The margins of this amendment is marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

#### CONCLUDING MATERIAL

Custodians:  
Army - ER  
Navy - EC  
Air Force - 85

Preparing activity:  
DLA - ES  
  
(Project 5915-0369)

Review activities:  
Army - AR, AT, AV, ME, MI  
Navy - AS, MC, OS, SH  
Air Force - 19, 99